CONTENTS

Introduction  4
Existing Conditions  22
Goals and Objectives  32
Planning Principles  34
Master Plan Documentation  42
Implementation Strategy  82
Appendix  92
Acknowledgements  98
The Innovation District Master Plan is a framework setting forth Village of Evendale’s vision and objectives for the present and future uses, improvements, and development of AeroHUB. The AeroHUB: Innovation District Master Plan represents goals and strategies to guide the Village of Evendale and stakeholders well into the future. The Master Plan provides foresight, adaptability, direction, and a defined achievable future for AeroHUB by establishing existing conditions, goals and objectives, planning principles, master plan documentation, and an implementation strategy.
INTRODUCTION

AeroHub is an Innovation District for Advanced Manufacturing and Applied Technology.
VISION

AeroHUB is a planned advanced manufacturing and aerospace innovation campus located in SW Ohio. It will strategically co-locate highly skilled designers, engineers, manufacturers, researchers and educators and equip them with integrated design thinking and advanced digital manufacturing systems—making first-run production and full industrialization innovations more efficient and affordable.

This is essential to fueling our region’s economic development. By increasing the number of products—along with their value, sales and profits—Ohio’s economy, jobs and tax base grow exponentially.

AeroHUB is committed to educating and up-skilling new and current personnel on rapidly evolving systems and processes, ensuring nobody is left behind, and everyone is prepared for the future, before it arrives.

The adjacent communities to AeroHUB, by leveraging their collective resources, have the opportunity to be a major “advanced manufacturing” player in the State of Ohio. AeroHub has the potential to benefit the surrounding communities with jobs, property value increases, increased business and businesses, shared amenities, identity and vitality. Those same benefits can extend to the region and beyond, with new developments in research, advanced manufacturing and applied technology.

The Village of Evendale is committed to this vision. It began work on this project nearly 5 years ago, establishing leadership with a Community Investment Corporation that has invested over $5 million in site acquisition for the initial 50 acres. Additionally, the Village of Evendale has a “right of first refusal” on an additional +/-140 acres.

Evendale has committed nearly $4 million toward the construction of Phase 1 of this project, and has successfully secured a $500,000 Jobs Ohio grant.

The CIC has assembled a team of vested partners that include Red Tiger Investments for Economic and Real Estate, TechSolve for Advanced Manufacturing, University of Cincinnati Research Institute for Additive Manufacturing, and Cincinnati State for Workforce Training.

Strategic Partnerships have been formed with Federal resources America Makes and Lift, State Level Jobs Ohio, and Ohio Higher Ed, Hamilton County Development Corporation and REDI Cincinnati and multiple private enterprises, including GE.
ADVANCED MANUFACTURING

New technologies, material, and manufacturing processes are leading a resurgence in manufacturing. Advanced manufacturing is dramatically transforming the way we do business and the way we live—and its demonstrated power as an economic engine is growing daily. Its roots are not in the past of heavy industry but in the future of high tech. Not smokestacks and blast furnaces, but clean rooms and electron beams.

Using 3D printing with laser beams and metal alloy powder, General Electric reimagined an engine of 85 parts into just twelve, improved engine performance by 20 percent, cut development time by one third and won a major contract. The company is a global leader in additive manufacturing and estimates the market potential of additive manufacturing (a subset of advanced manufacturing) at $75 billion.

Additive techniques using polymers are producing better, customized joint replacements, and 3D printing of actual bone tissue is being investigated.

Advanced manufacturing can spectacularly collapse the conventional layers of supply chain, transport and assembly. It is creating high tech, high value components that are bringing manufacturing jobs back to the United States.

General Electric became a world leader in additive manufacturing by acquiring two top firms in the industry. Innovation by acquisition has become an important tool for global corporations, who recognize that innovation, especially disruptive innovation, often starts small, thriving in diverse creative communities rather than in isolated, slow and rigid corporate structures.
INNOVATION DISTRICTS

Enter innovation districts. How do good ideas become viable enterprises that contribute to society through their products and through job creation? The Brookings Institute studied a particular aspect of this question by investigating places that were particularly good at answering this question—places like Silicon Valley, and more recently, Kendall Square in Cambridge, Cortex in St. Louis and South Lake Union in Seattle.

They found that not only are brains and dollars important, but social interaction, proximity and physical setting matter. To make them real, Innovation Districts are almost always founded by a “triple helix” of research/innovation entities, private enterprise, and government.

The Brookings Institute introduces Innovation Districts in this way:

“As the United States slowly emerges from the Great Recession, a remarkable shift is occurring in the spatial geography of innovation.

For the past 50 years, the landscape of innovation has been dominated by places like Silicon Valley—suburban corridors of spatially isolated corporate campuses, accessible only by car, with little emphasis on the quality of life or on integrating work, housing and recreation.

A new complementary urban model is now emerging, giving rise to what we and others are calling “innovation districts.” These districts, by our definition, are geographic areas where leading-edge anchor [research] institutions and companies cluster and connect with start-ups, business incubators and accelerators.

Innovation districts constitute the ultimate mash up of entrepreneurs and educational institutions, start-ups and schools, mixed-use development and medical innovations, bike-sharing and bankable investments—all connected by transit, powered by clean energy, wired for digital technology, and fueled by caffeine.

Given the vast distinctions in regional economies, the form and function of innovation districts differ markedly across the United States. Yet all innovation districts contain economic, physical, and networking assets. When these three assets combine with a supportive, risk-taking culture they create an innovation ecosystem—a synergistic relationship between people, firms and place (the physical geography of the district) that facilitates idea generation and accelerates commercialization.” 1

The International Association of Science Parks and Areas of Innovation offer this definition:

Areas of Innovation:

“Places designed and curated to attract entrepreneurial-minded people, skilled talent, knowledge-intensive businesses and investments, by developing and combining a set of infrastructural, institutional, scientific, technological, educational and social assets, together with value added service, thus enhancing sustainable economic development and prosperity with and for the community.” 2

Not only are innovation districts becoming economic engines for their regions, they are a more broadly engaged job generator. It has been estimated that around 40-50% of the jobs created do not require a college degree.

The St. Louis Cortex Innovation Community has transformed an aging, neglected industrial 200 acres of the city into a vibrant community of almost 2 million sf of new development and over a half a billion dollars of investment. Cortex is home to 200 companies, more than half of which are startups, and over four thousand jobs. It continues to grow vigorously, and has spawned a sister/extension redevelopment area, St. Louis Midtown.

AEROHUB

For advanced manufacturing, aerospace and applied technology innovation, the AeroHub Innovation District is one of the largest and best located development sites in the tri-state region. As an innovation district, it will be a dynamic place that appeals to millennial workers—who will become 75% of the workforce in only 7 years—and who are critical in technology fields.

According to a March 2017 Forbes article, over the next decade the nation could be short 2 million workers for skilled manufacturing jobs. Area Development Magazine lists access to a workforce with the right skills as the number one priority. And according to a 2017 Deloitte study, Greater Cincinnati does have an edge, with an affordable workforce possessing the right mix of skills for modern manufacturing enterprises—but is lacking in many suitable sites.

AeroHub is planned to address this national need and local advantage.

The AeroHub master plan is comprised of approximately 190 contiguous acres. Phase 1 of the project is comprised of +/-50 acres in the Village of Evendale, Ohio. This site is uniquely suited for easy access due to its location between two major I-75 interchanges, Glendale-Milford and Sharon Roads.

The site is located in the heart of the Southwest Ohio Aerospace Region (SOAR) adjacent to the world headquarters of GE Aviation. Advanced manufacturers and suppliers will have the advantage of being close to many potential customers and collaborators, from Wright Patterson Air Force Base to the north, and the international airports of Dayton and Cincinnati/Northern Kentucky.

Joined to AeroHub by improved connections across I-75 is General Electric, a $100 Billion company leading advanced manufacturing with their $1.5 billion in acquisitions—a statement of their long term commitment.
CONTEXT FOR THE VISION

Cincinnati Business Courier Cover Story: Dirty, Dark, Dull - Millennial workers don’t think of manufacturing as an attractive career. Here’s why Cincinnati has got to get that fixed. (August 25, 2015).


Summary Findings
- The average salary of a manufacturing worker in Cincinnati is $74,000
- Biggest challenge of manufacturers is the availability of labor
- In Cincinnati, 18,000 advanced manufacturing jobs will go unfilled in the next decade according to TechSolve
- Advanced manufacturing job benefits on average being 30% higher than nonmanufacturing jobs
The Port of Greater Cincinnati Development Authority
Re-Industrialization of Hamilton County – University of Cincinnati Economics Center

In March 2016 the University of Cincinnati Economics Center on behalf of the Port of Greater Cincinnati Development Authority and TechSolve, released a report evaluating the historical and present economic impact of manufacturing in Hamilton County and the expected impact of a proposed redevelopment of approximately 2,000 acres of industrial land.¹

In Hamilton County’s peak manufacturing year of 1969, 146,000 – nearly 50% of everyone employed in the County – worked in manufacturing, with direct earnings of $4.8 billion and more than $106 billion in total economic output. From 1969 to 2015, the number of people employed in manufacturing decreased to 48,000.

The report found the proposed redevelopment will improve the economic vitality of the region and increase job competitiveness, enhance the tax base and provide opportunities within Hamilton County. The project will create 32,000 new direct manufacturing jobs, $2.3 billion in direct earnings and an estimated $40 billion in total economic output. Ultimately, the redevelopment will culminate in 80,000 direct manufacturing jobs and 190,000 total jobs. The total earnings will amount to $12.1 billion and more than $105 billion in total economic output. The study’s findings show the reindustrialization will position Hamilton County as a national leader in manufacturing and will provide jobs far into the future.

Economic Impact:
- Acre coverage ratio of 33% for every one acre of developable land, approximately 1/3 of the land is covered with manufacturing footprint, with the remainder to be used for infrastructure such as roadways, parking lots, green-space, accesses and utilities
- Approximately 1 worker is required per one thousand square feet (895.5 sq. ft. per employee)

Summary Findings
See subsequent page for overview of findings.

¹ Made in Hamilton County. UC Economics Center. Port of Greater Cincinnati, March 2016.
The proposed redevelopment of approximately 2,000 acres of industrial land throughout Hamilton County for manufacturing uses will have a considerable impact on the Greater Cincinnati Region. To understand the historical, present, and future importance of manufacturing in the region, the Economics Center analyzed establishment-level data for each time period, prepared an economic output report, and estimated the fiscal impact and impact on the vitality of the economic state of the region.

In 1969, nearly 50% of everyone employed worked in manufacturing. This was the peak year for the number of people employed in manufacturing.

Until 1976, the relative strength of manufacturing in Hamilton County was greater than the relative strength of manufacturing in the United States.

Population data shows a decline in Hamilton County's population during the local downturn in manufacturing.

The Historical and Future Impacts of Manufacturing

In 1969, there were nearly 146,000 people employed in manufacturing, $4.8 billion in direct earnings and more than $106 billion in total economic output.

The proposed redevelopment will result in approximately 32,000 new manufacturing jobs and an estimated $2.3 billion in direct earnings. The total economic output will be over $40 billion.

In 2015, there were approximately 48,000 individuals employed in manufacturing in Hamilton County. Direct earnings were $3.6 billion and total economic output of manufacturing was over $65 billion.

Ultimately, the redevelopment will lead to 80,000 direct manufacturing jobs, resulting in 190,000 total jobs. Total earnings will come to $12.1 billion and more than $105 billion in total economic output.
Manufacturing Attractiveness: A Locations Strategist's Perspective (February 2017)

In February 2017 Deloitte Consulting on behalf of the Port of Greater Cincinnati Development Authority, TechSolve, Cushman & Wakefield and REDI Cincinnati released a report analyzing Greater Cincinnati’s attractiveness for new manufacturing jobs.

Summary Findings

Cincinnati has an advantage in the presence of industrial engineers, machinists and tool/die makers, as well as a large supply of lower skilled production workers, giving the area a talent proposition to attract manufacturing deployments.

However, a key driver of the evaluation process for manufacturing deployments is developable sites (adequate acreage free from wetlands issues and outside of 100 year flood plain, utilities present on site, free from environmental concerns, clear ownership of site, easily accessible for trucks, etc.) and Cincinnati currently lacks suitable real estate options to entice most manufacturing operations.

Given Cincinnati’s availability in key manufacturing skill sets and low/average cost in several talent segments, an investment program to prepare site options would enhance its ability to attract manufacturing investment.

Labor Quality and Availability

- Availability of operators & technicians
- Availability of engineers & management
- Scalability of workforce

Real Estate

- Site readiness
- Capacity and availability of utilities
- Neighboring use/pollution

Supply Chain

- Quality/complexity of supply chain
- Proximity to existing & future customer markets, suppliers, & industrial services

Business/Regulatory Environment

- Operating permit process/timing/stringency
- Availability of grants and incentives & tax environment
- Level of unionization
- Ability to scale up the project
- Government and local support/fit

Transportation Infrastructure

- Quality of and access to rail, port, highways & air

General Risk

- Fiscal Stability
- State credit rating
- Natural Disaster Risk

Quality of Life

- Attractiveness for expats
- Crime and safety
- Cost of living
- Education system
- Healthcare
**ADVANCED MANUFACTURING**

New technologies, materials, and manufacturing processes are leading a resurgence in Ohio manufacturing, and there are a nexus of companies and organizations developing these gamechanging technologies. Ohio is home to three National Network for Manufacturing Innovation (NNMI) institutes: America Makes, which is headquartered in Youngstown, is focused on 3D printing/additive manufacturing. American Lightweight Metals and Advanced Composites Manufacturing are two consortium partnerships leading the development of new materials and advanced manufacturing. Together, with Ohio businesses, these institutes are advancing technologies and creating business ecosystems that position Ohio as a leader in advanced manufacturing.

**Aerospace & Aviation**

Highlights:
- Ohio is ranked #1 U.S. supplier state to Boeing & Airbus.
- 17% of total U.S. employment in aviation and aerospace located in Ohio.
- More than 1,200 private companies in the aerospace & defense industry.
- Over 130,000 full-time aerospace and aviation employees.
- PricewaterhouseCoopers ranked Ohio No. 3 in overall attractiveness for aerospace manufacturing and No. 1 in overall industry.
- 591 Ohio based firms.
- 44,000 employee base.
- 45 colleges and universities with programs supporting aerospace careers.
- Lowest tax rate of top 10 aerospace states.


---

**GLOBAL LEADERS IN OHIO**

- **Parker**
- **TIMKEN**
- **EATON**
- **UTC Aerospace Systems**
- **Honeywell**
- **Orbital ATK**
- **L3**
- **Lockheed Martin**

**OHIO CENTERS OF INNOVATION**

- NASA Glenn Research Center is accelerating propulsion, materials, energy storage, and communications.
- Wright-Patterson Air Force Research Laboratory has five directorates focusing on sensors, space vehicles, directed energy, advanced materials, and manufacturing.
- EWI Ohio State University partnership is advancing lightweight materials development.
- University of Cincinnati Research Institute is innovating research and career-ready learning partnering with GE Aviation, Airbus, Boeing, and Aerojet Rocketdyne.
- University of Dayton IQCasts is accelerating research and integration of advanced sensor technology.
Greater Cincinnati
Advanced Manufacturing
Manufacturing has been part of Greater Cincinnati’s DNA for over a century. Both I-75 and I-275 have been the primary manufacturing thoroughfares for the region.

Industry Highlights
• More than 2,500 manufacturing companies located in Greater Cincinnati region
• Top 20 North American trade partner
• Annual total trade of $17.68 billion in manufacturing
• Centrally located, making transportation and logistics easy
• 127,000+ skilled workers and 2,500+ manufacturing firms
• Ranked in the Top 5 most competitive cities in North America for aerospace (No. 2), chemicals and plastics (No. 4), and metals (No. 5). (Site Selection magazine, 2015) ¹

Southwest Ohio Aerospace Region (SOAR)
Greater Cincinnati & Dayton have been designated by the U.S. Department of Commerce as one of 24 federally designated manufacturing communities. This area has been termed the Southwest Ohio Aerospace Region (SOAR). This federal designation provides SOAR privileged standing on many federal grants and direct federal government contact to navigate the process.

Property Location
The Property is strategically located with superior visibility from I-75.

Market Advantages
• Located in the heart of SOAR
• Located one mile from GE Aviation with direct access via Shepherd Ave.
• Companies will have the advantage of being close to many potential customers, including Wright-Patterson Air Force Base to the north
• 50,000 scientists and engineers within a 50-mile radius
• A top 15 region in U.S. for aerospace products & parts manufacturing
• Adjacent $92.3 million widening and reconstruction of I-75 from Shepherd Lane to Glendale Milford Road
• Within a few miles of a main connection point for OARnet, the 100 Gbps network throughout Ohio

POTENTIAL DEVELOPMENT CATALYST

By ascertaining the surrounding uses to the property we identified the following potential catalyst for redevelopment of the Property:

GE Aviation

GE Aviation, the world leader in providing “commercial, military and business and general aviation jet and turboprop engines and components as well as avionics, electrical power and mechanical systems for aircraft. GE has a global service network to support these offerings. GE and its customers are also working together to unlock new opportunities to grow and deliver more productivity beyond traditional services. GE Aviation is becoming a digital industrial business with its ability to harness large streams of data that are providing incredible insights and in turn, real operational value for customers.”

The Property’s proximity to GE Aviation would offer suppliers and partners an unparalleled strategic location.

AEROHUB PROGRESS & HIGHLIGHTS

Overview

AeroHUB is a planned advanced manufacturing and aerospace accelerator located a few minutes away in Evendale, Ohio on I-75. It will strategically co-locate highly skilled designers, engineers, manufacturers, researchers and educators and equip them with integrated design thinking and advanced digital manufacturing systems—making first-run production and full industrialization innovations more efficient and affordable.

AeroHUB is committed to educating and up-skilling new and current personnel on rapidly evolving systems and processes, ensuring nobody is left behind, and everyone is prepared for the future, before it arrives. AeroHUB is being headed by the Village of Evendale with support from Red Tiger Investments, TechSolve, Cincinnati State Workforce Development, University of Cincinnati Research Center, JobsOhio, REDI Cincinnati, Opus Development and Saint Francis Group.

I-75 Corridor

For over a century, the I-75 corridor has been the main manufacturing thoroughfare through Cincinnati. Much of this manufacturing took place between Paddock Road and I-275. The early 1980s recession resulted in a decline in manufacturing nationally and along the I-75 corridor in Hamilton County.

A primary objective of AeroHUB is to act as a catalyst to spur the revitalization of manufacturing along the I-75 corridor in Hamilton County. Over the last decade the majority of new commercial development in Greater Cincinnati has taken place in the urban core of downtown Cincinnati, Norwood/Rookwood, Blue Ash, Mason, West Chester and most recently in Liberty Township.

Leveraging Collective Resources

The adjacent communities to AeroHUB, by collectively leveraging their collective resources, have the opportunity to be a major “advanced manufacturing” player in the State of Ohio.

- Evendale: GE Aviation and Developable Land
- Glendale: Distinguished Residential Stock and Developable Land
- Sharonville: Northern Lights Corridor, Existing Industrial and Office
- Woodlawn: Existing Industrial
- Lincoln Heights: Existing Industrial and Workforce
- Lockland: Existing Industrial, Workforce and Developable Land
- Reading: Existing Industrial and Workforce
I-75 Advanced Manufacturing Corridor
Community Collaboration

- Leveraging Collective Resources
- Thriving Epicenter
- Identity
- Recognition
- Increased Jobs & Revenue
- Increased Residential Demand
- Higher Quality of Life
- Long-Term Vision
STRATEGIC PLAN

Objectives
- Create an ecosystem for advanced manufacturing and R&D
- Be a catalyst for additional development along the I-75 Cincinnati-Dayton corridor
- Focus on “Advanced Manufacturing and Applied Technology Innovation”
- Acquire much more contiguous property
- Develop shovel ready sites with appropriate infrastructure

Opportunity
The following were the findings of the Deloitte Consulting Study (2017):
- Cincinnati has workforce to attract manufacturing companies
- Cincinnati currently lacks developable sites
- An investment program to prepare site options would enhance region’s ability to attract manufacturing investment

AeroHUB clearly meets the first two above criteria. AeroHUB is the premier infill advanced manufacturing site in Greater Cincinnati.
WORKFORCE DEVELOPMENT

“No economy can succeed without a high-quality workforce, particularly in an age of globalization and technical change.”

- Ben Bernanke, American Economist

AeroHUB is committed to educating and up-skilling new and current personnel on rapidly evolving systems and processes, ensuring nobody is left behind, and everyone is prepared for the future, before it arrives.

We have created the AeroHUB Technical Advisory Committee (TAC), comprised of leading advanced manufacturers and other industry related companies, to begin developing an Additive Manufacturing curriculum for higher education and workforce development. TAC members include GE Aviation, P&G, Rhinestahl, Cincinnati Inc., Belcan, EWI and others. These members provide insight and guidance to Cincinnati State Workforce Development, TechSolve and the University of Cincinnati Research Institute in the development of this curriculum, as well as, improving understanding and response to existing and emerging employer training needs. Recently the TAC was awarded a $393,000 grant by LIFT (Lightweight Innovations for Tomorrow) for development of this curriculum.
STRATEGIC LOCATION

Location, Location, Location

The Property is strategically located in the heart of the Southwest Ohio Aerospace Region (SOAR) with superior visibility and excellent access to I-75.
EXISTING CONDITIONS
OVERALL SITE

The full AeroHub Master Plan area occupies the western edge of I-75 at the Glendale Milford interchange.

The Village of Evendale currently owns the property in Phase 1, comprised of approximately 40 Acres north of Glendale Milford Road and about 13 Acres south of Glendale Milford Road. These properties are directly adjacent to the newly improved I-75 interchange. To the west, Phase 1 shares a substantial border with the industrial district in the Village of Woodlawn.

The Village of Evendale also retains a right of first refusal on the land in Phase 2, currently owned by Landmark Church. 20 Acres of Phase 2 (exact location to be finalized) will be retained by the Church for a new Worship Center. Phase 2 spans across property in the Village of Evendale and the Village of Glendale.

Phase 3 is also land currently owned by Landmark Church, stretching between Phases 1 & 2 and Sharon Road.

The remainder of land beyond Phase 3 is seen as a potential future enhancement of AeroHub, but not currently under formal agreement with the Village of Evendale. It is comprised of 3 properties. St. Rita School for the Deaf is situated on +/-40 acres at the northwest corner of Glendale-Milford Road and I-75 (the “St. Rita Property”). The land currently accommodates the school itself in a historic structure, and includes space for parking, staff residences, maintenance facilities, and areas previously used for fairgrounds during fundraising events. The St. Rita Property is not controlled by the Village of Evendale. The AeroHUB master plan has been designed to account for potential future development of the St. Rita Property. The Village of Evendale is willing to help facilitate a conversation with the owners if there is development interest. Because the Village of Evendale has no control over the St. Rita Property, we make no warranties about its availability.

The second and third potential future parcels sit south of Glendale Milford Road, adjoining Woodlawn to the west and the Village of Lincoln Heights to the south. The majority of this area is a training facility, the City of Cincinnati Police Firing Range, comprised of +/-29 acres south of Glendale-Milford Rd. and west of I-75 (the “Firing Range Property”). The Firing Range Property is not controlled by the Village of Evendale. The AeroHUB master plan has been designed to account for potential future development of the Firing Range Property. The Village of Evendale is willing to help facilitate a conversation with the owners if there is development interest. Because the Village of Evendale has no control over the Firing Range Property, we make no warranties about its availability.

The third small parcel was occupied by an overpass ramp joining access roads on either side of Interstate 75. The overpass has been deconstructed, and the land will be turned over to the Village of Evendale at the conclusion of the “Thru the Valley” I-75 improvement project.
AeroHub sits at the nexus of major technology, research, workforce training, and business assets. General Electric, a global leader in Advanced Manufacturing as well as other major applied technologies, has its major global aerospace center directly adjacent to AeroHub, just across I-75.

The interstate provides easy access southward to downtown Cincinnati, the Cincinnati Northern Kentucky International Airport and multiple higher education institutions, including the University of Cincinnati. To the north and quickly accessible from I-75 are Butler Tech, Sinclair Community College, Wright State University and the Dayton International Airport. Wright Patterson Air Force Base, the primary research and innovation center for the Air Force is less than an hour away by car.

The University of Cincinnati Reading Medical Research Campus is at the 4 mile radius, while the UC Blue Ash campus is just over 3 miles away. A major workforce training location for Cincinnati State and Community College is only 1.5 miles away.

AeroHub also enjoys proximity to notable local and regional amenities, including parks, community, recreation and cultural centers, as well as shopping and entertainment districts.
land is also currently owned by Landmark Church, with a right of first refusal held by the Village of Evendale. The Landmark Church Cemetery will continue to its present use, and will not be part of Phase 2. In addition, the Mathew Funerary Mound is listed on the National Historic Register and will also remain in Landmark Church Ownership as a burial mound site.

The site for St. Rita School is currently zoned for Public Facilities with the PUD Mixed Use designation. The St. Rita School building is listed on the National Historic Register. The potential training facility parcel south of Glendale Milford Road is currently zoned as Industrial Flex – 2 and is used as a firing range training facility for Cincinnati Police.

In order to optimize the use of the land and character of the proposed development, rezoning will be required into a Planned Unit Development. The Village of Evendale is preparing this document. A similar rezoning in Phase 3 will also be required through the Village of Glendale.
EXISTING SITE CHARACTER

The existing AeroHub Master Plan area is one of the largest tracts of developable land in the area, with some significant natural features that should be retained as both enhancement to character and as important natural resources. In the diagram to the right, dark green indicates more heavily wooded areas, while light green signifies large areas of meadow or lawn. Contour lines are shown at two foot intervals, indicating large areas of relatively flat or gently sloping land, bordered by more dramatically sloping areas, mostly at the perimeter along I-75. The steep slope along the interstate provides the possibility of excellent exposure for parts of the development. Steeper slopes internal to the property are typically also more heavily wooded. Retention of these areas as natural avoids more costly construction and retains visual interest in elevation change as well as natural beauty. The lake and the park-like setting surrounding it are a significant asset to the AeroHub development.

The southwestern section of Phase 1 north of Glendale Milford road is industrial in character with buildings and parking lots that will not be retained in the AeroHub development. Much of the remainder of Phases 1 (north) and 2 are open lawn or athletic fields, with the exception of the compact Landmark Church worship and gymnasium buildings and small maintenance complex. Phase 1 south of Glendale Milford has been largely cleared of existing buildings and parking lots to facilitate a new use and configuration appropriate to an Innovation District.

Much of Phases 2 and 3 are also largely lawn or meadow, with some existing parking and buildings, as well as additional ball fields. North of Glendale Milford Road, the St. Rita property accommodates the School along with related residential and service buildings. South of Glendale Milford, the police firing range land is a mix of open meadow and wooded areas with a few buildings. The small ramp area for the former I-75 crossover is mostly meadow with a few trees.
TRANSPORTATION

AeroHub is directly adjacent to Interstate 75, providing both excellent regional connectivity and exposure to over 100,000 cars a day. AeroHub’s southern gateways open onto Glendale Milford Road, which provides the interchange with I-75. Glendale Milford Road is also a major local east-west connector to Evendale, GE and Blue Ash to the east and Woodlawn and Wyoming to the west. Chester Road is a local street along AeroHub’s western edge, serving Woodlawn’s industrial district as well as the Glendale residential neighborhood. Chester Road connects to Sharon Road at AeroHub’s northern edge, providing access to Sharonville’s Princeton Schools campus and the Sharonville Northern Lights conference and entertainment district. However, AeroHub does not connect directly to Sharon Road. Current movement from AeroHub to Sharon Road requires driving through the Glendale residential section of Chester Road. Oak Road runs east-west between Phases 1 and 3, connecting to Chester Road.
Two Metro bus stops along Glendale Milford Road have the potential to serve the AeroHub district. One stop is directly in front of St. Rita School, and the second is directly adjacent to the future main entries to the northern and southern sections of AeroHub. There is another bus stop just past the northern end of AeroHub, along Chester Road north of Sharon Road.

Existing plans for dedicated bike lanes by the Village of Evendale run along Glendale Milford Road, connecting Woodlawn and potentially even Winton Woods to the west and Summit Park in Blue Ash to the east.

The Average Annual Daily Traffic counts for Northbound and Southbound I-75 total almost 150,000 cars a day passing directly beside the entire length of AeroHUB. Traffic on Glendale Milford Road adds another 23,000 plus cars, while the west side of the Sharon Road/I-75 interchange experiences another 14,000 cars daily.
**EXISTING SITE UTILITIES**

**Power**

Duke Energy, the local utility, provides electrical power through-out the site to each customer as needed. The utility distribution lines and most customer service laterals are routed overhead. The Duke Energy 34.5kV distribution line No. 46 and the 12kV line No. 288 are routed from the Woodlawn Substation, east, on Glendale Milford Rd. then through the site, north, along Chester Rd. This distribution line is undergoing a major rework and upgrade as part of the Sharonville Northern Lights District project along Chester Rd.

Duke Energy has plans to install a 69kV transmission line from the Evendale Substation, located east of the General Electric Aviation facility, to the Port Union Substation. This transmission line will continue to be overhead lines along the same path through the site, but with modernized poles. The transmission lines that jog northward across the center of the AeroHub site require a 100’ wide corridor with development constraints. Generally, no building may be located within the corridor, and only low plantings are permitted. Parking is allowed as long as appropriate measures are taken to protect the transmission lines and poles, and appropriate provisions are made for maintenance access to the lines.

**Site Lighting**

The existing street lighting throughout the site utilizes several types of fixtures, lamp types, mounting heights and pole styles.

**Communications**

Telephone, cable TV and internet service are provided to customers through-out the site by commercial vendors and have been installed by these vendors utilizing overhead distribution.

**Sanitary**

A 12-inch sanitary pipe is available on Glendale Milford Rd for the west end of the north site. For the south site, the sanitary pipe travels through the center of the Phase 1 area. Capacity of the sanitary pipe is unknown. The pipe size and capacity of the Sharon Rd sanitary sewer is unknown.

**Natural Gas**

There is a 12” natural gas service located at Glendale-Milford Rd and at Chester Road to the west of the site. The pressure of this line is unknown. There is also existing gas service on the site which extends from Glendale Milford to the existing St. Rita’s School, and an existing 4” NG service from Chester Road which extends along Oak Road to the Landmark school. For the part of the site south of Glendale-Milford Rd, there is gas service along the length of St Rita Lane until the end. The sizes and pressures of the existing NG service are in the process of being verified with Duke Energy engineering.

**Water**

A 12 inch water pipe is available on Glendale Milford Rd. The latest hydrant test was performed in 2010 on Spartan Dr. (next road west of St. Rita Ln.). Test results were 135 psi static and 115 psi residual at 1450 gpm.

The Sharon Rd water pipe size and hydrant test data is currently unknown.

**Storm**

Within the project area, a special flood hazard area, Zone A, is identified on the Flood Insurance Rate Map (FIRM) along the length of an unnamed tributary to the Mill Creek. No base flood elevations are established for this stream. This is located south of Glendale-Milford.

Per the information available, the existing drainage system consists of open drainage ditches, waterways, catch basins and underground pipes that carry the storm water to the existing 12-inch line at Glendale-Milford by gravity. This drains to a 24-inch line to a storm junction chamber and then to a 96-inch line south of Glendale-Milford. Storm detention for parts of the site is provided by an existing pond north and south of Glendale-Milford.
Existing Utility Color Legend

- Yellow: Existing Storm Pipe
- Green: Existing Sanitary Pipe
- Blue: Existing Water Pipe
- Red: Existing Natural Gas
- Orange: Existing Electrical Power
Distinctive and broad community benefit has been the primary goal of AeroHub from day one—across neighborhoods, municipalities and across the economic spectrum.
Economic & Employment

Jobs and prosperity. Advanced Manufacturing is a sector growing in revenue and value, bringing new jobs with a future. It rewards contributions from workers across the education spectrum, from leading edge PhD's to training and employment opportunities without the daunting costs of a Bachelor's degree. AeroHub will be a center for successfully growing ideas, training workers, and hosting successful advanced manufacturing and applied technology enterprises that create jobs and value.

Innovation | Collaboration

By design, Innovation Districts are centers for idea generation, and the collaboration needed to fuel and sustain and grow them into businesses. AeroHub will provide the denser physical setting for the productive, informal and social relationships that foster ideas, problem solving and practical strategies.

Community

Innovation Districts are about the creation of distinctive places, dynamic destinations, and fostering mutually beneficial connections to the surrounding community and region. AeroHub is uniquely positioned to bring benefit to its neighbors, the region, and the global advanced manufacturing community.

Sustainability

Advanced Manufacturing, Applied Technology, and Innovation Districts are about the future. But there can be no future unless it is a sustainable one. AeroHub has an opportunity to demonstrate that Manufacturing and Technology, rather than being an impediment, can be a key to a smart and durable future with nature.

Innovation Partners

Innovation doesn’t always just happen. Research shows that to promote a culture of innovation, there need to be partners in place who program events and activities and training that foster the critical synergy of economic, networking and physical assets.
PLANNING PRINCIPLES

AeroHub is a district for ADVANCED MANUFACTURING AND APPLIED TECHNOLOGY INNOVATION.
AeroHub brings together new ideas, growing ventures, and established businesses that focus on the power of digital innovation to transform our physical world at the scale of advanced manufacturing. It facilitates the collaboration, interactions and advising for businesses to thrive, as well as facilitates development of the workforce that sustains them.
Innovation is fed by the kind of connections and networks facilitated by proximity. AeroHub provides a range of densities that support concentrated vitality as well as advanced manufacturing production.
DISTINCTIVE PLACEMAKING is an economic and innovation engine

Exceptional shared places can foster identity and provide the kind of dynamic environment to attract the most critical component of innovation and enterprise—talent. AeroHub provides compelling plazas and green spaces framed by a lively variety of uses. Combined with robust internal and external connectivity, AeroHub is a regional destination and a cosmopolitan setting for creativity and productive interactions.

University of Cincinnati

South Lake Union, Seattle

Greenwich Village, New York City

Industry City, New York City

Harvard University
MIXED USES support innovation & create a destination district

Innovation districts thrive as dynamic environments with diverse activities. AeroHub provides a rich mix of business, manufacturing, research, education, retail, recreation and entertainment.
INNOVATIVE SUSTAINABILITY defines truly Advanced Manufacturing

AeroHub will be an international leader in sustainable and resilient development. Both Advanced Manufacturing and Advanced Sustainability/Resiliency rely on optimizing processes, systems thinking, efficient use of resources, healthy outcomes and advancing life to ensure that we are good stewards of this world for all life and future generations.
**FLEXIBILITY AND VISION** must be simultaneous constants

Flexibility guided by vision provides a clear framework of intention and expectation. AeroHub allows for future accommodation of new appropriate, positive opportunities without making the development vulnerable to uses and constructions that diminish overall AeroHub value and identity.
AeroHub is supported by a governance structure that includes development guidelines and a governing body. Smart governance provides clarity of intent, continuity and flexibility to assure occupants of a quality environment for opportunity.
AeroHub will be a destination:
where distinctive placemaking attracts thinkers, makers and doers to thrive through collaboration. where cars move easily, but where walking and biking are an easy first choice for many. where only the combination of high technology and vibrant nature define a manufacturing that is truly advanced.
OVERALL SITE FUNCTION AND EXPERIENCE

Fully envisioned at 190 acres, AeroHub will span from Sharon Road south across Glendale-Milford Road to the north edge of Lincoln Heights. It is bordered on the east by I-75 and to the west by Glendale residential properties as well as by Woodlawn industrial and a bit of residential property.
AeroHub Layout

The AeroHub development works with existing assets and constraints to build a framework for the development of a vibrant district for innovation through collaboration and interaction.

Retained Asset

- The existing lake and surrounding woods are significant natural assets for AeroHub and are celebrated as a shared park space.

Context Asset

- Interstate 75 and interchanges at Glendale Milford Road and Sharon Road provide excellent access and exposure to an average of over 100,000 cars per day.
Existing Resource Consideration

- The 69kV overhead power lines have the potential to provide significant power for manufacturing needs. The overhead lines also impact development configuration through easement requirements as well as aesthetic considerations.

Movement Framework

- An urban scale mobility grid provides a framework for density and ease of movement in the center core, with radiating connecting road/bikeways joining to other important parts of the campus and to major roadways.

Mobility

- Selected mobility paths are developed as pedestrian/bikeways to provide a more dynamic, campus-like atmosphere that promotes productive interaction.
Parking
- Parking and service areas in the core are largely consolidated to the center behind buildings, providing for better flexibility, efficiency and movement for cars and trucks. This frees other parts of the site for better pedestrian experiences and memorable spaces.

Focused Activity
- Two major north-south pedestrian/bike paths will be the focus of activity, richly landscaped and allowing sun on both sides of the path at different times of day, while avoiding the industrial character of the overhead power lines.

Nodes
- Major activity nodes are identified along the primary pedestrian paths, becoming the focus for retail, hospitality and event venues. Landscaping with shaded areas for seating will reinforce the settings for the interaction and informal collaboration vital to innovation districts.
CENTER ZONE

The center of AeroHub is pedestrian and bike oriented, a campus-like arrangement of buildings and amenities that open onto one of the great existing resources of the site, the park and lake. Besides advanced manufacturing and R&D, the core would include occupancies associated with early stage enterprises, such as start-ups and growing companies. Resources for these endeavors like incubators, accelerators, maker spaces, training and conference centers would logically also locate in the center core. The core is planned to be the primary locus of conferences, networking and social programming. Entertainment venues such as restaurants, bars and cafes will help extend these critical innovation activities by facilitating informal interactions. Buildings in this area will be at least 2 stories high, or 2 story equivalent for 1 story R&D and advanced manufacturing uses. Where possible for these two uses, office areas or more active glazed areas will be marshalled toward the façade along major pedestrian and/or vehicular facades.

Pedestrian path/quad “A” would be a primary collector for these activities, providing attractive options for moving across AeroHub and for programmed and informal activities. A major tech accelerator / conference center is featured prominently along Path A; both the building and the path would open dramatically onto a plaza overlooking the park.

Just east of the lake could be an intriguing mix of retail, entertainment and education functions in a provocative, mostly glass object building.

Still pedestrian and bike friendly, local street “B” in the center core will serve as a feeder for shared parking and service to the buildings, as well as being part of a street network. The shared parking will extend under the 69kV medium voltage power lines which jog generally from south to north. Consolidating parking and the power lines allows the two more activated commercial and pedestrian zones, Pedestrian path/quad “A” and Urban Road “C”, to remain largely uncompromised by the detraction of power lines and extensive parking lots. A potential electrical substation could be attractive to some advanced manufacturing prospects and an asset to the development. The placement and treatment of this substation will need to be carefully considered to integrate cost, function, and visual character impacts. Lines should be underground if at all possible.

Urban Road “C” will be combined with a greenway for pedestrians and bikes. For its 3 block length in the center core, it will vary in width to create a hybrid of quadrangle and mobility, green and urban, fed by ground level retail and entertainment.

More organic transverse pedestrian/bike paths run east-west to knit the central core into an integrated movement network that allows for cars but makes walking and biking an extremely easy and attractive option. This implements a common best practice at many innovation districts and high tech campuses.
The buildings and plazas immediately surrounding the lake are the heart of AeroHub. To the north of the lake, the non-profit Tech Accelerator provides advanced manufacturing enterprises with expertise in process improvement consulting, advanced machining services & testing, and process monitoring & analytic products. A sophisticated conference center hosts symposiums and training, while laboratories and high bay space provides opportunities for testing, co-creation and customized training for advanced manufacturing apparatus.

Overlooking the lake from the west, the shared event venue, retail and entertainment building extends the capacity of the Tech Accelerator, and provides social and shared forums for the programmed and informal interactions critical to realizing and scaling innovation. Plazas, benches, shade trees, fountains and landscaping extend to the site the possibilities of productive gathering and interaction.
At the intersection of Urban Street B and Pedestrian Path 2 is a second major focus node for AeroHub, with additional retail and entertainment functions as well as the main entrances for the surrounding buildings. A significant plaza can support gatherings and events (for example, some innovation districts support scheduled local farmers’ market activities).
View from the lake towards the event venue and Tech Accelerator, with Pedestrian Path A extending north beyond.
A closer view of the Tech Accelerator facility, and the associated major plaza and landscaping.
A view looking north across the second major focus node, with a major retail and entertainment facility and plaza.
NORTH ZONE

Moving north, Urban Road C expands to an urban corridor road (AeroHub Boulevard North), accommodating the added traffic from the east/west urban road. The parallel greenway extends from the core area all the way to Sharon Road with no street crossing, only drives, for over ¼ of a mile—the equivalent of 10 blocks. Quieter and smaller scale mixed uses and potential education uses, such as workforce training, will be to the west along the Glendale residential area. To the east, a flexible mix of uses is permitted: Research & Development, Office & Conference, Hotel, Retail & Entertainment, and Education. Depending on building height, location and trees, significant exposure to I-75 is a potential for buildings in this section. Landmark Baptist Worship Center (Landmark) will have a home along this eastern edge, sharing a site with the Mathew Mound, a funerary mound on the National Register. The exact location and configuration of the 20 Acres dedicated to these two uses will be finalized in the near future. As development of the Landmark property and AeroHub property advances in the future, careful consideration should be given to the requirements of the Ohio State Historic Preservation Office.

At Sharon and Chester Roads, the southern, residential part of Chester Road would be pulled back and become a cul-de-sac. This would mitigate cut through traffic for this quiet residential street. It would also allow for AeroHub North to intersect Sharon Road opposite Chester Road to the north. In scale and character, this is a more appropriate connection for Sharonville, AeroHub, and Glendale. The offset in the road could provide an opportunity for a gateway feature/building.
SOUTH ZONE

Moving south from the center core, AeroHub extends alongside the St. Rita property to Glendale Milford Road with advanced manufacturing uses. In addition to access from AeroHub Boulevard, these uses are served by an industrial service road at the western edge of AeroHub, diverting some larger truck traffic from the center of the development. This industrial road provides two siding areas for semi-trailer rigging.

AeroHub crosses Glendale-Milford Road served by the same AeroHub urban boulevard with pedestrian / bike path. This southern area enjoys substantial frontage along Glendale-Milford Road, as well as excellent exposure to the adjacent I-75 ramp. AeroHub Boulevard would extend through the corner of the property currently leased by GE to provide access for their parking lot. In the future, AeroHub Boulevard has the potential to continue to the present Cincinnati Police firing range property if it becomes part of AeroHub. This area will also include the land of the adjacent ramp loop for the crossing over I-75. The crossing and ramps are scheduled to be demolished as part of the I-75 “Through the Valley” ODOT project.

Renovation of the Glendale-Milford bridge across I-75, combined with circulation enhancements within the GE complex, create a strong bond with GE.
LANDMARK CHURCH OF WORSHIP

Architects for the Landmark Church Worship Center, HiFive Development Services, has created a preliminary concept site plan for the church, to be located on 20 acres, which will include parking and the historic Mathew Burial Mound. It is proposed to be located across from the cruciform Landmark Church Cemetery. The location, plan and orientation of the worship center creates an integrated complex symbolically set "at the foot of the cross", overlooking I-75. A potential for shared parking will be explored, since the peak demand for the Church is not coincident to peak needs for adjacent buildings. The exact boundaries of the 20 acres is in the process of being finalized.
COMMUNITY CONTEXT

Consistent with the goals for broad community benefit, AeroHub can engage many opportunities to be a catalyst for positive change for its neighbors:
Sharonville Northern Lights District

An influx of enterprises and activity will help to feed the retail, entertainment, convention and hospitality businesses of the Sharonville Northern Lights District. The plans for this area outline changes to make Chester Road a more pedestrian focused environment. The adjacency of Princeton High School and Middle School suggest opportunities to build educational engagement relationships that foster career goals and help build the much needed future high tech manufacturing workforce.

Glendale

AeroHub will bring new connectivity between Glendale-Milford Road and Sharon Road. The more public Sharonville component of Chester Road can feed into AeroHub Boulevard, rather than abruptly squeezing into Glendale's residential streets. At the same time, the development of AeroHub in Glendale can provide new amenities to Glendale, as well as significant tax revenue.

Landmark

Landmark Baptist Temple Worship Center, by providing the majority of its underutilized land for AeroHub, unlocks significant potential for the community. This will also provide resources to bring Landmark closer to their vision for a new Worship Center. There might also be synergies such as shared parking, since the schedules of Landmark and business hours are complementary, not conflicting.
Woodlawn
The success of AeroHub could positively influence property values and opportunities for the Woodlawn industrial district directly adjacent to the west. Thoughtful collaboration in the development of this area could bring mutual benefit to both areas. For example, the new service drive on the west edge of AeroHub could help serve Woodlawn properties as well.

St. Rita School
There are exciting potentials for workforce training and corporate engagement with this school and AeroHub. In the future it may even be possible that some of the existing land owned by the Archdiocese for the St. Rita School could be developed. The St. Rita Property is not controlled by the Village of Evendale. The AeroHUB master plan has been designed to account for potential mutually beneficial future development of the St. Rita Property. The Village of Evendale is willing to help facilitate a conversation with the owners if there is development interest. Because the Village of Evendale has no control over the Firing Range Property, this Master Plan can make no warranties about its availability.

Lincoln Heights
If the Cincinnati Police Firing Range Training property becomes part of AeroHub, the industrial/flex properties to the south in Lincoln Heights may also be positively influenced by AeroHub. Perhaps even a connection to Mangham Drive could be explored, if there is mutual interest. The Firing Range Property is not controlled by the Village of Evendale. The AeroHUB master plan has been designed to account for potential future development of the Firing Range Property. The Village of Evendale is willing to help facilitate a conversation with the owners if there is development interest. Because the Village of Evendale has no control over the Firing Range Property, this Master Plan can make no warranties about its availability.

GE
As a global leader in additive manufacturing and applied technology, GE is an important component of AeroHub. #13 on the 2017 Fortune 500 list, GE can be a major attractor for businesses engaged with, or aspiring to engage with the corporation. As demonstrated by their recent purchase of two leaders in additive manufacturing, GE is engaged in innovation through acquisition. AeroHub will be a hotbed of new ideas and growing innovative business that could not be closer. AeroHub can offer much needed executive conference space, training and symposium events directly beneficial to GE.
AeroHub is zoned with four use mixes. Each mix allows multiple primary uses, which overlap across mix types for flexibility. Uses progress from occupancies with a potential for light industrial character (Advanced Manufacturing and R&D), to occupancies compatible adjacent to residential (education & mixed use that could include retail and office like uses.) Parks and green belts contribute further buffering to adjacent properties, and well as offer additional amenities to AeroHub and its neighbors.
Mix A—Advanced Manufacturing and Research and Development.
Areas zoned for Mix A are some of the largest potential parcels, suited for uses with larger footprint and service requirements. While these could be considered light industrial and could involve semi-trailer traffic, Mix A uses tend to be higher value, lower volume enterprises. North of Glendale-Milford Road, Mix A is zoned adjacent to Woodlawn industrial properties, and is supported by an industrial drive along the western edge to reduce service traffic inside AeroHub. South of Glendale-Milford Road, the southernmost area in size and proportion could be highly attractive to either primary use. A significant green buffer will be required adjacent to residential areas.

Mix B—Advanced Manufacturing, Research and Development, Office & Conference, Hotel, Retail & Entertainment.
This diverse use mix is allocated to the core area, and is suggested for uses that can be more compact, and can be stacked vertically. The Mix B parcel in Phase 1 is allocated to a technology accelerator, its central and prominent location a statement of the importance of expertise and collaboration. The east edge of Mix B enjoys prominent exposure to I-75 with its Average Annual Daily Traffic of over 130,000 cars.

Mix C—Research and Development, Office & Conference, Hotel, Retail & Entertainment, and Education.
This mix is similar to Mix B, but shifting away from light industrial, dropping Advanced Manufacturing and adding Education. In the core and to the north, more compact, higher density office use is allowed, and R&D can be deployed with less density. The allocation of the old St. Rita building to Mix C allows for the structure to remain a school, or, if St. Rita moves to a new building, permits a variety of appropriate uses, including office, or premium hospitality.

Mix D—Mixed Use and Education
Uses more appropriate adjacent to residential make up Mix D. Mixed use is envisioned as primarily educational and office type uses with some first floor retail, but not entertainment occupancies that could be disruptive.
Biophilic engagements shown to be positive influences on health and productivity, as well as contributing significantly to stormwater management through rain gardens and inexpensive subgrade detention and percolation systems. Night lighting will provide for both physical security and thoughtful enhancements to dynamic placemaking.

The combined Urban Street "C" and pedestrian path extending along the eastern edge of AeroHub and becoming AeroHub Boulevard to the north will be a parallel hybrid of the Urban Street and the pedestrian bike path, providing a continuous bike and pedestrian path almost the full length of Phase 2 uninterrupted by transverse street intersections, only private access drives.

Four types of roads are envisioned: high capacity Urban Corridors that feed from Sharon Road and Glendale Milford Road into smaller scale Urban streets, Local Roads which feed smaller adjacent blocks, and the Industrial Service Road, which allows for some off-loading of semi-trailer truck traffic to the area feeding the largest concentration of advanced manufacturing facilities. Traffic circles are located at the four corners of the central core to facilitate smooth vehicle flow. The traffic circle center will be a slightly rougher paver to guide car traffic but also allow for easy turning by semi-trailers.

AeroHub Boulevard south of Glendale Milford Road will be sized as a two lane road, but with a right of way to accommodate two additional lanes in the future if development density and vehicle demand merits.

Parking and service areas are shared to optimize efficiency. Lots are consolidated as much as possible, located behind buildings to enhance pedestrian / bike friendliness in other parts of the site and promote a more urban like feel. In the limited areas where parking is exposed to streets or primary pedestrian ways, landscape walls and significant landscape screening is required. Parking lots will also be populated with shade trees and rain gardens to mitigate storm surges and reduce the need for extensive stormwater piping.

Within the central core, bike and pedestrian paths create an internal network of highly connected movement options. Landscaping on the north-south paths will be more explicitly geometric, while the east-west paths will be more curving and organic with more natural plantings. Both will provide areas for pedestrians, bikes, and areas for informal relaxing, meetings and collaborations. These paths will provide the biophilic engagements shown to be positive influences on health and productivity, as well as contributing significantly to stormwater management through rain gardens and inexpensive subgrade detention and percolation systems. Night lighting will provide for both physical security and thoughtful enhancements to dynamic placemaking.

The combined Urban Street "C" and pedestrian path extending along the eastern edge of AeroHub and becoming AeroHub Boulevard to the north will be a parallel hybrid of the Urban Street and the pedestrian bike path, providing a continuous bike and pedestrian path almost the full length of Phase 2 uninterrupted by transverse street intersections, only private access drives.

MOBILITY

With the disruptive rise of ride sharing services like Uber and Lyft, autonomous vehicles and the millennial interest in car alternatives and walkable lifestyles, each future investment in infrastructure for traditional single owner vehicle accommodations should be done with careful consideration to current trends and site specific requirements.

At present, for the AeroHub area, single owner vehicles are still the primary mode of transportation. Mass transit options are restricted to Metro bus service with a limited network of service in the area, particularly to the surrounding residential neighborhoods. Bike paths through the surrounding areas are planned but not currently in place. Consequently, the first stages of AeroHub will need to plan for more conventional roadway and parking capacities, with a focus on tailoring investments to what is required for proper function and development character.

Overall development density is governed by projected intersection performance of AeroHub Boulevard at Sharon Road and at Glendale Milford Road during peak hours. I-75 connections indicate that flow to the east will be the large majority of car movement, with western outlets at Chester Road and the industrial service drive experiencing more limited demands for flow. Traffic capacity analysis by Bayer Becker, traffic consultant to the Village of Evendale, has indicated that the densities and uses shown should provide acceptable wait times at the key intersections.

Within AeroHub, mobility modes are designed to allow proper private vehicle and service vehicle flow, but prioritizing pedestrian and bike interconnections.
The Urban corridors are the AeroHub Boulevard feeders from the Glendale Milford Road and Sharon Road. It provides for parallel parking, two lanes of vehicle traffic and one dedicated bike lane in each direction, enhanced by a center green strip. Separated by a curb is a zone for street trees and generous sidewalk. Outside the right of way is a private setback zone to the primary face of the flanking buildings. This private setback zone allows for canopies, building cantilevers and sidewalk retail activity to provide lively facades and street activity.

From Sharon road to the center core, a greenway will parallel AeroHub Boulevard. Widths for the two bike lanes, the eastern tree and pedestrian zone will be consolidated into a unified greenway planted with trees, natural meadow, raingardens and areas of more formal planting with benches and tables.
URBAN STREET

The Urban Street provides a quieter, more pedestrian-friendly scale at the perimeter of the Central Core, and to the south of Glendale Milford Boulevard. It provides for parallel parking, a dedicated bike lane and one lane of car traffic in each direction. A slightly narrower sidewalk and planting zone still allows for easy pedestrian movement and building engagement. The private setback zone is still provided, to take advantage of the smaller, more pedestrian scale. The Industrial Service Road is a variation of the Urban Street that eliminates parallel parking to allow for easier large vehicle movements.

Urban Street B, at the eastern edge of the central core, will be paralleled by a greenway along its eastern edge. Widths for the two bike lanes, the eastern tree and pedestrian zone will be consolidated into a unified greenway. The greenway will be composed of trees, the bike path, raingardens and more formal landscaping appropriate to the denser context and adjacent retail and entertainment venues.

The combined greenway along Urban Street B and AeroHub Boulevard (north) will provide a continuous movement path for bikes and pedestrians from the south edge of the central core all the way to Sharon Road and its connections to the Sharonville Northern Lights District.
LOCAL STREET

The Local Street still provides parallel parking and a single lane of traffic in each direction, but allows for sharing of the road by bikes and cars due to the slower speeds and smaller traffic volumes. The sidewalk and planting zone is appropriately smaller in scale, and the private setback zone is still retained. In areas more oriented to service traffic and access, parallel parking is not required and these spaces will be allocated to provide better maneuverability for trucks.
GREENWAY

Urban Street B, at the eastern edge of the central core, will be paralleled by a greenway along its eastern edge. Widths for the two bike lanes, the eastern tree and pedestrian zone will be consolidated into a unified greenway. The greenway will be composed of trees, the bike path, raingardens and more formal landscaping appropriate to the denser context and adjacent retail and entertainment venues.

The combined greenway along Urban Street B and AeroHub Boulevard (north) will provide a continuous movement path for bikes and pedestrians from the south edge of the central core all the way to Sharon Road and its connections to the Sharonville Northern Lights District.
INTEGRATION OF LANDSCAPE, ARCHITECTURE, VEHICULAR AND PEDESTRIAN MOVEMENT

It is critical that the campus composition is designed and executed holistically. The Architecture and Landscape shape the Vehicular and Pedestrian movement. The first floor shall be transparent and establish a walkable, human-centric rhythm, especially facades that shape the pedestrian movement. Short pedestrian blocks will allow for ease of movement to and from building, parking, retail and learning spaces to facilitate a walkable environment. Walking and bicycling are to be encouraged by clearly defined paths with an ease of use. Landscape will play a critical role. Deciduous street trees allow for shade in the summer and sun in the winter, while providing a well-proportioned pedestrian frame. Native species will form various planted zones for beauty, play and interaction. Pedestrian routes will have smaller scaled materials, employ universal design practices and safety strategies to encourage walking from building to building. Each mode of transportation will have its own lane: pedestrian, cyclist and driver. Landscaping will reinforce and help attract pedestrian and bicycle movement. Low architectural walls and landscaping will continue to define the urban edge along parking lots. A shuttle will take users to regional attractions such as the Northern Lights District or area retail venues. Ideally, Metro will drive the main loop and tie back into the Glendale-Milford bus route. Key nodes will employ roundabouts for continuous traffic flow and reduction of fatal accidents. The island will be a textured hard surface to allow for both pedestrian safe zone and tractor trailer overturns is needed.
ARCHITECTURAL CHARACTER

The Architecture will visually establish AeroHub as a place with a mission to advance technology and society. It will be inspiring to those that work, learn, play and visit. The character of the Architecture will need to represent a mixture of contemporary and timeless thought. Contemporary to express the forwarding thinking that occurs at AeroHub, and Timelessness to not date the campus. Natural materials with concrete, glass and metal should be used. Contemporary thoughts can be expressed with translucency/ transparency/ opacity, stacking and connecting of various program types, interior street experiences and expressions of new technologies. Punch openings should be large and human scaled. Glazing should be clear. Volumes should be expressed with a lack of ornamentation. Timelessness should be employed with simple, clean lines, natural proportions, and monumentality. Lighting shall be integral to the design and not seen as an afterthought. Blurring of interior and exterior spaces is encouraged. Entrances should protect users from the elements and be an integral part of the design.
SUSTAINABILITY

There are several main environmental concerns within the watersheds, ecosystems and human development within the Village of Evendale region. Through research conducted by USGBC (U.S. Green Building Council) LEED (Leadership in Energy and Environmental Design) Regionalization Directors and region-wide sustainability knowledge, several key issues rise to the top that impact the AeroHub Master Plan.

**Rainwater**

First and foremost, the MSDGC (Metropolitan Sewer District of Greater Cincinnati) has a district-wide CSO (Combined Sewer Overflow) problem and is under a consent decree from the USEPA (U.S. Environmental Protection Agency) to resolve it. While the Village does not have any CSOs within its borders, it does contribute to issues downstream. With the property on the high ground, it is ideally situated to lessen rain water impacts. Separation of storm and sanitary is mandatory; however, the district could also aide in recharging the aquifer and slowing down the rate of storm release. Cities, like Kansas City, have implemented municipal-wide efforts to support the improvement of water quality and reduction of rainwater into the piped systems by installing raingardens and other rainwater green solutions. As this is the major environmental concern of the region, it is important that AeroHub play a leadership role.

**Energy Sources**

The vast amount of energy used in Greater Cincinnati is sourced from coal or natural gas fuels. These fuel choices produce carbon dioxide, nitrogen oxides, monoxides and sulfur dioxides into the air. The harvesting of these fuel choices also remove habitat. Cities, like Cincinnati, have contracted an aggregation provider to supply renewable electricity energy credits on the city's behalf. This came at a cost savings to the city and rate payers with the ability to opt out. Corporations, including area Fortune 500 companies like Fifth Third bank, have made 100% renewable energy commitments. Net Zero Energy is less expensive with new construction if it is part of the initial design process. A district with 100% carbon free energy for base loads is possible and will set AeroHub and the Village apart from other developments.

**Air Quality**

Evendale and Greater Cincinnati has Air Quality issues...
which enter into the USG (Unhealthy for Sensitive Groups) range defined by the USEPA. Although general public is not likely to be affected at this AQI range, people with lung disease, older adults and children are at a greater risk from exposure to ozone, whereas persons with heart and lung disease, older adults and children are at greater risk from the presence of particles in the air. Transportation emissions is one major factor in poor air quality. Furthermore, regional efforts exist to reduce the use of gasoline and diesel consumption by 20%. Greater Cincinnati’s worse traffic congestion centers on I-75. There is only 1 bus route that serves the Village of Evendale; bus route 43 connects Glendale Milford to downtown Cincinnati. Innovation Districts worldwide focus determined effort on providing multiple transit options to the single occupied vehicle. To reduce transportation congestion and pollution while increasing air quality, it is important for AeroHub to have a series of tactics employed to promote diverse transit options. Also, to increase regional air quality and lower temperatures, there is a regional effort to plant 2 million trees (representative of the 2 million people in the region). AeroHub will have a robust native landscape initiative which will increase air quality, lower temperatures and increase biodiversity.

**DISTRICT SUSTAINABILITY LEADERSHIP**

AeroHub will be a public-private effort. Achieving high levels of sustainability will be a shared venture between the Village, the Developers and the Tenants. Following are the attributes that Village of Evendale, through the AeroHub Governance Board, will commit to implementing.

**District Energy Performance.**

Shared geo loop. Geoexchange utilizes the ground as a heat sink and is one of the most efficient ways to heat and cool buildings. The District’s geo loop will allow energy loads to be shared across users. If one area or building needs cooling and another needs to be heated, the shared loop will efficiently balance the load making both parties more energy efficient. LED (Light Emitting Diode) exterior lighting. LED lighting shall be the specified norm for the entire campus for all exterior lighting. This includes, but is not limited to, traffic signals, parking lot, pedestrian, walkway bollard, accent and plaza lighting.

Solar access zoning for public plazas. Shared plazas shall have access to radiant energy from the sun. The majority of the District’s public plazas will have direct sun exposure during the morning and midday timeframe. Generally this means public plazas will be on the south with some eastern exposure and limited building shadow interference. It is proven that the sun’s light and warmth helps active public spaces in our region; whereas, completely shaded spaces become utilized less.

**District Water Performance**

Comprehensive bioretention approach. The District will not look at detaining or retaining per individual parcel. Rather, a comprehensive stormwater approach shall be utilized to manage. As parcels are developed, adjustments may need to be made to accommodate the added impervious area off the parcel’s site. A comprehensive series of rain gardens, biodetention cells, infiltration systems and retention ponds will be utilized to achieve the current version of LEED LID (Low Impact Development) criteria. In a manner best replicating natural site hydrology process, the District will manage the runoff from the developed site for the 98th percentile of regional or local events using LID and green infrastructure. Rain water capture is recommended, though not required.

**District Waste Reduction Performance**

District central recycle and compost locations. At designated areas, the District will house recycling and compost stations for District-wide use. The AeroHub Governance Board will contract with a recycling and compost waste service provider.

**District Landscaping and Habitat Performance**

Dark Sky exterior lighting. Exterior lighting shall employ Dark Sky cutoff shields to set an example for future development. Dark Sky consideration will aide in winged species migration and habitat development. It is understood that the District will be a Dark Sky ‘oasis’; however, it is desired for the District to serve as an example and catalyst for regional movement toward this elimination of light pollution. Homer Glen, Illinois is a good Midwestern example of a Dark Sky municipality inspiring neighboring communities to do the same.

Native species landscaping. Only true native vegetation shall be specified and installed, non-natives, including grafted hybrids, shall not be installed. These natives must comply with the Village of Evendale’s Code of Ordinances pertaining to noxious vegetation. Existing non-natives shall be removed, except for trees already mature to a minimum of 24 inch caliper; these trees shall not be permitted to reproduce. By focusing on truly native plant species, the District will aide in developing a native habitat for flora and fauna. In the public/ park-like spaces, a botanical garden will emerge. The native
District Occupant Heath Performance

Human health is a primary aspect of sustainability. To that end, the District shall incorporate healthy infrastructure amenities, including comprehensive trails and exercise paths. Once Phase One is complete, the AeroHub Governance Board will partner with a local CSA (Community Supported Agriculture) organization to provide local and fresh food for purchase among the District occupants. Frequency and quantity will be market driven. Public landscape areas, if demand exists, will allow for tenant sponsored community gardens for food production. While the ADA (American with Disabilities Act) is part of code compliance, the District will include Universal Design approaches so that the design and composition of the District can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability. The buildings and grounds will be required to have green cleaning, pest control and grounds operations and maintenance plans and contracts.

District Transit Performance

The District will pursue partnerships with regional transit organizations in an effort to secure a Metro bus hub with multiple bus routes and a Bike Share program, like Red Bike, to have easier access to GE and other surrounding local attractions. The District tenants will also have access to comprehensive transit amenities; these including but not limited to:

• Required Walkable paths (Village and Developer)
• Preferred Solar rechargeable car stations (Village and Developer)
• Required Preferential carpool locations (Village and Developer)
• Ride Share kiosk/app (Operated by AeroHub)
• Required Bicycle paths & lanes (Village and Developer)
• Shuttle to the region (3rd party hired by AeroHub)
• Required Preferential green vehicle parking locations (Village and Developer)

District Building Material Performance

A central recycling station will be installed for ancillary products. Unlike the typical recycling and compost stations, this ancillary product station will be in one location due to the expected lower volume. Materials to be recycled here include batteries, mobile phones, textiles, electronics, etc.
DEVELOPER SUSTAINABILITY LEADERSHIP

As AeroHub strives to be a leader in sustainable development, each tenant must contribute to the district’s human and environmental goals. These contributions are separated below as Prerequisites, Incentives and Encouragements. Prerequisites are mandatory sustainability achievements that must occur to be part of AeroHub. Incentives are sustainability accomplishments that provide direct gain in the form of incentives to be determined. Encouragements are high level accomplishments that showcase the Village’s leadership in sustainability by removing the typical barriers found in nonleading jurisdictions, such as rainwater capture for toilet conveyance.

These attributes are centered around the building and site performance for each user/ sub development. Please note that they do not take into account the process energy, process water or process waste; although, process sustainability is encouraged.

Minimum Energy Performance.

Building energy consumption is limited to 20 kBtus/ SF/ Year – or an EUI maximum of 20. This is strictly energy use - irrespective of the energy source. This does not include process energy, such as energy used in manufacturing, commercial kitchens or the like.

LED lighting must be used throughout the building and site, unless it is proved that LED causes issues with specialized equipment.

Minimum Water Performance

Each site shall support the comprehensive rainwater plan by including rainwater controls, such as bioswales and raingardens for quantity and quality metrics aligned with the current version of LEED to obtain the maximum number of points associated with rainwater. Sites shall comply with storm and sanitary requirements, including pipe separation. Due to the requirement of truly native vegetation, no potable water will be used for irrigation after the establishment period of one year.

50% water base building use reduction from current regional average is required. This typically can be achieved by a combination of low flow fixtures and waterless urinals.

Minimum Waste Reduction Performance

Each building will include Recycling and Composting dumpsters that support the overall District wide infrastructure. These building-centric stations will support the LEED Rating System guidelines. Each building will have a Construction Waster management Plan and Net Zero Waste Management Plan.

Minimum Habitat Performance

Dark Sky exterior lighting. Exterior lighting shall employ Dark Sky cutoff shields to set an example for future development. Dark Sky consideration will aide in winged species migration and habitat development. It is understood that the District will be a Dark Sky ‘oasis’; however, it is desired for the District to serve as an example and catalyst for regional movement toward this elimination of light pollution. Homer Glen, Illinois is a good Midwestern example of a Dark Sky municipality inspiring neighboring communities to do the same.

Native species landscaping. Only true native vegetation shall be specified and installed, non-natives, including grafted hybrids, shall not be installed. These natives must comply with the Village of Evendale’s Code of Ordinances pertaining to noxious vegetation. Existing non-natives shall be removed, except for trees already mature to a minimum of 24 inch caliper; these trees shall not be permitted to reproduce. By focusing on truly native plant species, the District will aide in developing a native habitat for flora and fauna. In the public/ park-like spaces, a botanical garden will emerge. The native landscaping will be drought resistant and support native wildlife – especially pollinators. The native wildlife will be encouraged, yet kept in check around buildings and other property so as not to become a pest-control issue. AeroHub has the opportunity to become one of, if not, the first mixed use/ mixed tenant developments that is entirely landscaped in native species. National examples exist in the manufacturing and technology space under single ownership, such as furniture manufacturer Herman Miller in Zeeland, Michigan and Fermilab National Accelerator Laboratory outside Batavia, Illinois.
Encouragements

These Encouragements are sustainable enhancements that the Village will allow. Many jurisdictions have code or zoning restrictions that force variances. The Village will amend their building and zoning codes to allow for the following:

- Living machine.
- Rain water harvesting for toilet conveyance.
- Edible landscapes/ community gardens for food production.
- Living walls.

Minimum Transit Performance

Each building will include bicycle storage, shower facilities and green vehicle parking according to the current version of LEED.

Minimum Occupant Health Performance

While the American with Disabilities Act is part of code compliance, the buildings will include Universal Design approaches so that the design and composition of the buildings and grounds can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability.

By 2030, the buildings and grounds will be required to have green cleaning, green pest control and green grounds operations and maintenance plans and contracts, except where proven to harm specialized equipment or processes. These green services contracted fees may be reduced through bundling with other AeroHub tenants and can be brokered through the AeroHub Governance Board.

Minimum Building Material Performance

In support of LEED Gold minimum certification, buildings shall include a minimum of 30% regionally harvested and manufactured materials and 40% aggregated recycled content in their building materials.

Manufacturers from 20 buildings products installed shall report material ingredients. This is in an effort to reduce material use which include known hazards, such as carcinogens.
INFRASTRUCTURE & UTILITIES

POWER

The AeroHUB site is located between two Duke Energy substations, the Woodlawn Substation and the Evendale Substation. Two options are available to furnish distribution power to the site depending on customer load requirements. Most customers would be adequately served with power originating from the Woodlawn Substation. A customer requiring additional power capacity would be served by the installation of a dedicated utility substation at the site. The Duke Energy distribution cables would be routed below grade throughout the site as necessary. All customer service laterals would be installed below grade at each new facility.

Duke Energy has started upgrading the 69kV transmission lines between the Evendale Substation and the Port Union Substation. The initial pole line section has been installed north of Glendale Milford Rd. and into the AeroHUB site. These overhead transmission cables are being routed through the AeroHUB site and the pole line could also be utilized to route cables to a new site dedicated distribution substation if required to serve a high use customer.

Within the Duke Energy high voltage transmission line easement, 50’ from the center of the cables in both directions for a total of 100’, parking spaces and site or roadway lighting up to 15’ high are permitted. Roadways are allowed to cross the easement space perpendicular to the pole line. Nothing else is allowed to be installed directly below the pole line.
New Utility Color Legend

- **Yellow**: NEW STORM PIPE
- **Green**: NEW SANITARY PIPE
- **Blue**: NEW WATER PIPE
- **Red**: NEW NATURAL GAS PHASE 1
- **Pink**: NEW NATURAL GAS PHASE 2
- **Purple**: NEW NATURAL GAS PHASE 3
- **Orange**: NEW ELECTRICAL POWER
Customers requiring large amounts of electrical capacity would have the option to purchase power from Duke Energy at the transmission rate and install their own distribution substation, or at the distribution rate, with Duke Energy providing the distribution to their facility. Duke Energy could also provide a local or dedicated substation for these high capacity users. The dedicated substation would be provided with two transmission cable feeds for reliability and would furnish a minimum of 4.4 MW of capacity at the site.

**Site Lighting Usage**

Street and parking lot lighting would utilize pole mounted light-emitting diode (LED) fixtures with “Dark Skies” lighting cut off to minimize overhead light contribution. All pole mounted fixtures and all facility accent and wall mounted lighting would utilize 4000K LED’s making the lighting color match throughout the site. Advanced parking lot lighting controls would include photocell on/off control combined with occupancy sensors and fixture dimming modules. After hours, the parking lot light fixtures would dim. When a vehicle approaches, a sensor would bring the fixtures up to full brilliance. After the vehicle’s occupants have left the parking lot area the lighting would dim back to pre-determined levels. This would minimize energy usage and help keep overhead lighting contribution to a minimum.

**Communications**

High speed communication vendors would utilize utility overhead pole lines and below grade raceways, routed below the roadways, for routing of fiber optic cables. Another option is accessing the State of Ohio OARnet ultra-high speed data communication system and providing access to the State of Ohio super computer located in Columbus. This system delivers technology-based solutions that reduce costs, increase productivity and improve customer service - and has done so since 1987. It is a division of the Ohio Department of Higher Education’s Ohio Technology Consortium and serves Ohio's education, health care, public broadcasting and government communities. Their mission and the industry they serve are in-line with the AeroHUB mission. The Village of Evendale would have the OARnet fiber circuits extended to the site from the existing connection point at 10000 Reading Rd. The Village of Evendale would be able to provide this government sponsored ultra-high speed communication service to the AeroHUB site customers.

**Water**

Water is provided for both domestic and fire protection needs.

Domestic water requirements were derived from building area information for each area to determine toilet room fixture requirements. The fixture units were then calculated, which provides the proper diversity. Adding 20% for other uses, the gpm was computed. Total for the north site was estimated to be 1100 gpm, while the south site was estimated to require 400 gpm.

For fire flow requirements, the commercial buildings were assumed to be sprinklered, while the condominiums were assumed not to be sprinklered. The Village of Evendale Fire Department was contacted to determine fire flow standards. Fire flow is to be 3800 gpm for non-sprinklered buildings and 2800 gpm for sprinklered buildings with the hydrant at 20 psi.

The north site total water flow is 4900 gpm, which corresponds to a 12 inch water line to provide 20 psi at the farthest hydrant. The south site total water flow is 3200 gpm, which corresponds to a 10 inch water line to provide 20 psi at the farthest hydrant.

The water utility capacity would be required to be increased to provide the development water capacity. Total development water flow with a fire flow on the north side is 5300 gpm. Using the hydrant test data, this flow would result in the water pressure on Glendale Milford Road of -85 psi, which obviously is inadequate.

Connecting the development water line to the Sharon Road water main would improve the water pressure, but would be connecting two different water districts, which is probably not an option. Of particular concern is that the Sharon Road water main connection would not materially help the south site water pressure with fire flow.

While a small quantity of water, discussions have occurred with Southwest Regional Water District (SWRWD) for delivery of non-potable water for industrial uses. This includes adding a pumping station at the south site.

**Storm**

Hydrologic and a hydraulic analysis would need to be performed of the unnamed tributary to the Mill Creek, at the site south of Glendale-Milford. The analysis would be included as part of the Floodplain Development Permit Application submitted to the Village of Evendale’s Floodplain Administrator. The analysis would subsequently be submitted to the Federal Emergency Management Agency (FEMA) as a part of Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) applications.
The purpose of the hydraulic analysis is to identify the existing 100-year surface elevation of the floodplain and determine the impact on the proposed development. The characteristics and size of the tributary drainage area would be determined using available USGS Quad maps, the Soil Survey of Hamilton County and Hamilton County CAGIS information. The TR-55 computer program would be used to calculate the peak flow rate.

The hydraulic analysis would be submitted to the Village of Evendale’s Floodplain Administrator. Based on an initial review of the village’s floodplain regulations, it would be necessary to submit a CLOMR application to FEMA once the study is approved by the village’s floodplain administrator. CLOMR approval is required prior to the beginning of construction within the floodplain. Permitting through the Army Corps of Engineers or the Ohio EPA for work within or adjacent to any regulated waterway or wetlands would also be required.

In general, the storm run-off due to the new development would be detained in the various ponds, wetlands, and similar features that would be constructed as the site is developed. This would insure that the post-construction run-off does not exceed the pre-construction run-off.

Sanitary

Sanitary capacity equals the domestic water usage. Sanitary pipe size is based on 1% gradient until more detailed design can occur. The north half of the north site would be routed to Sharon Rd, while the south half of the north site would be routed to Glendale Milford Rd. The north half of the north site sewer would have a capacity of 920 gpm, which corresponds to a sewer main of 15 inches.

The south site is routed to the sanitary pipe on the north half of that site that connects to Glendale Milford Rd. The south site would have a capacity of 400 gpm, which corresponds to a site sewer main of 12 inches.

Since the Glendale Milford Rd. and Sharon Rd. sanitary sewer capacities are unknown and the development sanitary sewage requirements are large, the utility sanitary sewers may require modification to increase their capacities. One solution is to construct a holding tank and a pumphouse.

Natural Gas

North of Glendale Milford Road - For Phase 1 development, a new 12” distribution main would be routed along Aerohub Blvd to the existing Oak Rd. This assumes that there is sufficient pressure at the main in Glendale Milford Rd to support this, which is being verified by Duke Energy gas engineering. For phase 2 development, the new 12” distribution main would be extended along Oak Rd to the East of the site. For Phase 3 development, this gas main, reduced to 8”, would be extended down the road to the northernmost end of the site.

St. Rita’s would tie into a 12” existing gas main located on the site in the vicinity of the existing St. Rita’s school. South of Glendale Milford Rd - Phase 1 of the south site would be served from an existing gas main which travels along St Rita Lane. The size of this gas main is unknown, but likely large enough to support Phase 1 development. For Phase 3 development, a new gas main would need to be extended to the site from Glendale Milford Rd. This is being verified by Duke Energy gas engineering.
IMPLEMENTATION STRATEGY
**PHASING**

**Phase 1**

AeroHub Phase 1 is comprised of 53 acres of land owned by the Village of Evendale. It encompasses a sufficient core directly accessible from I-75 to create the heart of AeroHub. This core is envisioned to include advanced manufacturing, with additional potential for R&D and/or office uses. A technology accelerator / conference and training center would be prominently sited adjacent to the lake and central greenspace. A building that houses street level retail and/or restaurant/bar venues and supports informal conferencing and networking events would be directly across an innovative quad/rain garden/pedestrian and bike Path A. Oak Road would remain a public road during Phase 1. Development of Phase 1 south of Glendale Milford Road will depend largely on the specific needs of the user or users at that location. Access through to the existing industrial use to the south and the Police training property must be maintained.
PHASING

Phase 2

Phase 2 is comprised of 20 acres of land currently owned by Landmark Church and spans across the Village of Evendale and the Village of Glendale. The Village of Evendale currently holds right of first refusal for this land. Phase 2 extends the center core of AeroHub to the east, including R&D and office areas, as well as additional retail and entertainment venues critical to innovation district vitality. Phase 2 will provide exposure to Interstate 75 along a section its eastern edge. Landmark Church will retain acreage for a new worship center and the existing historic Mathew Burial Mound. The new worship center will be fed by the existing north-south road that also provides access to the cemetery. Landmark Church will also retain ownership and use of the existing Cemetery.

Roads and infrastructure will be developed as appropriate to attract and support user facilities. Depending on location and development of buildings and density, Oak Road and the east-west private road along the northern edge of the lake will be retained until Urban Street 2 can be constructed on what is now St. Rita Property.
**PHASING**

**Phase 3**

Phase 3 will add the land north of Phases 1 & 2 up to Sharon Road. Additional Office, Advanced manufacturing, R&D and Mixed Use square footage will be created, along with some education/training space and some retail/entertainment space. Large green buffers will be retained along the perimeter of AeroHub that borders residential areas. AeroHub Boulevard will extend from the core north to a new intersection with Sharon Road. AeroHub Boulevard will be aligned opposite the commercial section of Chester Road north of Sharon Road. Chester Road will terminate in a cul-de-sac south of Sharon Road and the new AeroHub Boulevard. To correctly realize this intersection, some property must be acquired.
FLEXIBILITY

One of the primary traits of a durable Master Plan is flexibility within a set of principles that maintain focus. The denser core with larger unbroken areas at the perimeter allows for significant variation while retaining core areas for vitality and concentrated activity. Because the perimeter areas are well served by adjacent roads but largely unencumbered by fixed transverse roads or parcels, parcel sizes can vary significantly. In addition, even core areas can accept ownership across paths, with either multi-building campus arrangements common to high tech companies, or even buildings joined by bridges.
GOVERNANCE

Purpose and Objectives

The ultimate goal of governance is to provide the culture, processes and structure that make an Innovation District thrive. The planning principals of governance for the AeroHub development should be guided by the overarching goal of an Innovation District that provides a platform for a work ethic and culture that creates a collaborative environment for competition within the Advanced Manufacturing space. The competition and collaboration should contribute to the shared values of the District.

Key constituents of the governance structure should include AeroHub businesses, Village of Evendale leadership, academic stakeholders (research & workforce development), as well as civic and resident representation.

The Governance Board and Plan should provide structure, guidance and requirements in the following categories:

• Description
• Financial
• Terms
• Strategic Initiatives
• Regulatory
• Ownership
• Parcel Development
• Design
• Repair & Maintenance
• Security
• District Brand Image & Marketing
• Programming & Management of Public Spaces
• Sustainability

The governance plan should be closely coordinated with Zoning and PUD requirements for the District, however it should not create a burdensome regulatory structure that becomes a barrier to entry that minimizes the opportunity to attract target clients. Governance should be focused on being efficient at delivering value that facilitates the capacity of the District to drive and sustain its own shared value. The governing body should be organized around creating successful private and public spaces to accomplish common goals more efficiently.

Governance Board

The AeroHub Governance Board should be established to provide appropriate representation for each stakeholder. The Village of Evendale should engage legal and accounting counsel to provide advice and direction regarding enabling legislation for the establishment of a non-profit foundation operating for the benefit of the AeroHub Innovation District.

Careful consideration should be given to the authority and responsibility of the Governance Board and its members. Oversight, control, funding and input by the Village of Evendale is an important consideration. The task of establishing a Governance Board at the inception of AeroHub should provide appropriate control by the Village of Evendale within a structure that will afford the Board the ability to operate under a broader management body as the development grows.

Establishing a functioning Governance Board should address the following:

• Legal structure
• Shareholders
• Officers
• Employees
• Board Membership & Terms
• Officer & Board Authority, Powers & Duties
• Initial & Ongoing Funding
• Engagement of Zoning & PUD requirements
GOVERNANCE PLAN OUTLINE

Mission, Vision & Value Statement
- Key goals of the District
- Purpose of Development
- Development Area
- Neighboring Development
- Use Types as described in the Master Plan
- Implementation Strategy

Terms
- Business Association
- Plan Duration, Termination and/or Dissolution of District
- Authority to Compel Improvements
- Breach or Withdrawal
- Prohibited Uses & Activities

Financial
- Equity Capital (initial & ongoing)
- Development / Acquisition
- Tax Incentives
- Grants
- Public Funding
- Use of Proceeds

Strategic Initiatives
- Master Plan
- Phasing

Regulatory
- Zoning
- PUD

Ownership
- Common Areas
- Public Property
- Individual Development Parcels
- Parcel Development
- Property Improvement Guidelines
- Shared use
- Common Area Responsibilities
- Development Agreement & Approval
- Property Assessment Fees

Design
- Parcel Design Guidelines, Review & Approval
- Common Areas
- Landscape, Streetscape & Site Amenities

Repair & Maintenance
- Individual Parcels
- Common areas
- Infrastructure

Security
- Individual Parcel Security
- AeroHUB District Security

District Brand Image & Marketing
- AeroHUB District Branding
- Public Relations
- Outreach & Community Engagement

Programming & Management of Public Spaces
- Public Property
- Common Areas

Sustainability
- Prerequisites
- Incentives
- Encouragements
ZONING APPROACH

Consultants to the Village of Evendale are developing draft Planned Unit Development Zoning Language for AeroHub. The Master Plan Design Team has reviewed the language and made recommendations related to the AeroHub Master Plan concepts. Once the final AeroHub Master Plan has been approved and adopted, a final review of the PUD language should be conducted to integrate any updates.

GENERAL DEVELOPMENT GUIDELINES | BUILT ENVIRONMENT CHARACTER

As part of the Governance Documents, detailed development guidelines should be created to frame requirements and expectations for the quality of the built environment. This will help to protect and enhance the real estate investments of all occupants of AeroHub. Guidelines should extend the requirements of the PUD and the intent described in the Master Plan. Governance Documents should include provisions and procedures for enforcing as well as updating the Development Guidelines. Guidelines should include:

- AEROHUB MASTER PLAN
  - The current version of this document, the AeroHub Master Plan should be included to provide the vision, goals, and principles of the development.

- PLANNED UNIT DEVELOPMENT ZONING REQUIREMENTS
  - An electronic link to the current Planned Unit Development Zoning Requirements should be provided.

- PARCEL DEVELOPMENT GUIDELINES
  - Building
    - Architectural Character
      - Forward looking architectural language
        - Timeless, clean, abstract formal language
        - Avoid historicist theming and detail
        - Human scale contemporary detailing, especially at first floor and entrances
  - Site
    - Overall Formal Character
      - Forward looking landscape and hardscape language and standards
        - Retaining walls
        - Steps
        - Ramps
        - Railings
        - Curbs
          - Rainwater management provisions
  - Ground level transparency
    - Along all facades facing streets, pedestrian paths, greenways or parks
      - Clear vision glass at first floor, minimum 60% of first floor wall surface from 2' to 10' above first finish floor
  - Engagement and integration with site
  - Massing variations within private setback zone above the first level to create visual interest and engagement with street.
  - Street level development of private setback zone to enhance public right of way and building user experience.
  - All facades to be aesthetically designed, including those facing parking and service areas.

- Sustainability Guidelines
  - Prerequisites
  - Better Building Certifications
  - Encouragements
<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steps</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Ramps</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Railings</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Hardscape Plazas</strong></td>
<td>o Paving materials and subgrade preparation</td>
</tr>
<tr>
<td><strong>Hardscape paths</strong></td>
<td>o Paving materials and subgrade preparation</td>
</tr>
<tr>
<td><strong>Site Furnishings</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Plantings</strong></td>
<td>o Urban plaza</td>
</tr>
<tr>
<td>o Raingarden</td>
<td></td>
</tr>
<tr>
<td>o Natural Meadow</td>
<td></td>
</tr>
<tr>
<td><strong>Lighting</strong></td>
<td>o Engagement and integration with buildings</td>
</tr>
<tr>
<td>o Lighting</td>
<td></td>
</tr>
<tr>
<td><strong>Parking Areas</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Parking Lot Standards</strong></td>
<td>o Location: behind buildings</td>
</tr>
<tr>
<td>o All parking areas to be shared to optimize use unless dedicated lot is accepted by Governance Board</td>
<td></td>
</tr>
<tr>
<td>o Paving</td>
<td></td>
</tr>
<tr>
<td>o Bicycle Parking</td>
<td></td>
</tr>
<tr>
<td><strong>Landscape</strong></td>
<td>o Trees</td>
</tr>
<tr>
<td>o Screening</td>
<td>o Buffer zones</td>
</tr>
<tr>
<td>o Lighting</td>
<td>o Semi-Trailer / Large truck sidings for rigging and unrigging, locations shown on master plan</td>
</tr>
<tr>
<td>o Power</td>
<td>o Benches</td>
</tr>
<tr>
<td>o Sustainability Guidelines</td>
<td>o Lighting</td>
</tr>
<tr>
<td>o Prerequisites</td>
<td>o Better Building Certifications</td>
</tr>
<tr>
<td>o Encouragements</td>
<td></td>
</tr>
<tr>
<td><strong>Design Review</strong></td>
<td>o All construction will be subject to design review for conformance to Development Guidelines.</td>
</tr>
<tr>
<td><strong>PUBLIC RIGHT OF WAY GUIDELINES</strong></td>
<td><strong>Mobility Systems</strong></td>
</tr>
<tr>
<td>o Vehicular</td>
<td></td>
</tr>
<tr>
<td>o Bicycle</td>
<td></td>
</tr>
<tr>
<td>o Pedestrian</td>
<td></td>
</tr>
<tr>
<td>o Lighting</td>
<td></td>
</tr>
<tr>
<td>o Utilities</td>
<td>o With the exception of the 69kV line, all utilities are to be underground</td>
</tr>
<tr>
<td>o Signage &amp; Wayfinding</td>
<td></td>
</tr>
<tr>
<td><strong>Landscape</strong></td>
<td>o Landscaping</td>
</tr>
<tr>
<td>o Trees</td>
<td>o Screening</td>
</tr>
<tr>
<td>o Screening</td>
<td>o Buffer zones</td>
</tr>
<tr>
<td>o Power</td>
<td></td>
</tr>
<tr>
<td>o Sustainability Guidelines</td>
<td></td>
</tr>
<tr>
<td>o Prerequisites</td>
<td></td>
</tr>
<tr>
<td>o Better Building Certifications</td>
<td></td>
</tr>
<tr>
<td>o Encouragements</td>
<td></td>
</tr>
<tr>
<td><strong>Design Review</strong></td>
<td>o All construction will be subject to design review for conformance to Development Guidelines.</td>
</tr>
<tr>
<td><strong>PUBLIC RIGHT OF WAY GUIDELINES</strong></td>
<td><strong>Mobility Systems</strong></td>
</tr>
<tr>
<td>o Vehicular</td>
<td></td>
</tr>
<tr>
<td>o Bicycle</td>
<td></td>
</tr>
<tr>
<td>o Pedestrian</td>
<td></td>
</tr>
<tr>
<td>o Lighting</td>
<td></td>
</tr>
<tr>
<td>o Utilities</td>
<td>o With the exception of the 69kV line, all utilities are to be underground</td>
</tr>
<tr>
<td>o Signage &amp; Wayfinding</td>
<td></td>
</tr>
<tr>
<td><strong>Landscape</strong></td>
<td>o Landscaping</td>
</tr>
<tr>
<td>o Trees</td>
<td>o Screening</td>
</tr>
<tr>
<td>o Screening</td>
<td>o Buffer zones</td>
</tr>
<tr>
<td>o Power</td>
<td>o Semi-Trailer / Large truck sidings for rigging and unrigging, locations shown on master plan</td>
</tr>
<tr>
<td>o Sustainability Guidelines</td>
<td>o Lighting</td>
</tr>
<tr>
<td>o Prerequisites</td>
<td>o Better Building Certifications</td>
</tr>
<tr>
<td>o Encouragements</td>
<td></td>
</tr>
<tr>
<td><strong>Design Review</strong></td>
<td>o All construction will be subject to design review for conformance to Development Guidelines.</td>
</tr>
<tr>
<td><strong>PUBLIC PARK GUIDELINES</strong></td>
<td></td>
</tr>
<tr>
<td>o Protect Existing Trees</td>
<td></td>
</tr>
<tr>
<td>o Protect Existing Lake</td>
<td></td>
</tr>
<tr>
<td>o Natural Meadow, with focused areas of lawn</td>
<td></td>
</tr>
<tr>
<td>o Trails</td>
<td>o Accessible trails</td>
</tr>
<tr>
<td>o Landscaping</td>
<td></td>
</tr>
</tbody>
</table>
DENSITY CALCULATION

Overall development density is governed by projected intersection performance of AeroHub Boulevard at Sharon Road and at Glendale Milford Road during peak hours. The following Land Use and Density projection was provided to Bayer Becker, Inc., traffic engineering consultant to the Village of Evendale. Their analysis indicates that flow to the east in the direction of I-75 will be the large majority of car movement. Western outlets at Chester Road and the industrial service drive are projected to experience more limited demands for flow, but could potentially absorb some overflow from the two main intersections during peak times. Bayer Becker analysis has indicated that the densities and uses shown should provide acceptable wait times at the key intersections.
### PHASE 1 North

<table>
<thead>
<tr>
<th>Acres</th>
<th>MIX A</th>
<th>MIX B</th>
<th>MIX C</th>
<th>MIX D</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SF</td>
<td>SF</td>
<td>SF</td>
<td>SF</td>
<td>SF</td>
</tr>
<tr>
<td></td>
<td>93,001</td>
<td>24,812</td>
<td>13,045</td>
<td>62,063</td>
<td>151,911</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>151,911</td>
</tr>
</tbody>
</table>

**Advanced Manufacturing**
- SF: 24,812
- Mix: 30%
- FAR: 0.35
- Clerk per 1,000 sq. ft.: 0.60

**Research & Development**
- SF: 13,045
- Mix: 15%
- FAR: 1.00
- Tech Accelerator

**Office & Conference**
- SF: 62,063
- Mix: 25%
- FAR: 0.25

**Hotel**
- SF: 0
- Mix: 0%
- FAR: 1.00
- Staff to key: 1:1

**Retail & Entertainment**
- SF: 0
- Mix: 0%
- FAR: 1.00
- Restaurant, cafe

**Mixed Use**
- SF: 0
- Mix: 0%
- FAR: 1.00

**Education**
- SF: 0
- Mix: 0%
- FAR: 1.00

**TOTALS**
- SF: 151,911
- Mix: 100%
- FAR: 0.50

### PHASE 1 South

<table>
<thead>
<tr>
<th>Acres</th>
<th>MIX A</th>
<th>MIX B</th>
<th>MIX C</th>
<th>MIX D</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SF</td>
<td>SF</td>
<td>SF</td>
<td>SF</td>
<td>SF</td>
</tr>
<tr>
<td></td>
<td>93,001</td>
<td>24,812</td>
<td>13,045</td>
<td>62,063</td>
<td>151,911</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>151,911</td>
</tr>
</tbody>
</table>

**Advanced Manufacturing**
- SF: 24,812
- Mix: 30%
- FAR: 0.35
- Clerk per 1,000 sq. ft.: 0.60

**Research & Development**
- SF: 13,045
- Mix: 15%
- FAR: 1.00
- Tech Accelerator

**Office & Conference**
- SF: 62,063
- Mix: 25%
- FAR: 0.25

**Hotel**
- SF: 0
- Mix: 0%
- FAR: 1.00
- Staff to key: 1:1

**Retail & Entertainment**
- SF: 0
- Mix: 0%
- FAR: 1.00
- Restaurant, cafe

**Mixed Use**
- SF: 0
- Mix: 0%
- FAR: 1.00

**Education**
- SF: 0
- Mix: 0%
- FAR: 1.00

**TOTALS**
- SF: 151,911
- Mix: 100%
- FAR: 0.50

### PHASE 2

<table>
<thead>
<tr>
<th>Acres</th>
<th>MIX A</th>
<th>MIX B</th>
<th>MIX C</th>
<th>MIX D</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SF</td>
<td>SF</td>
<td>SF</td>
<td>SF</td>
<td>SF</td>
</tr>
<tr>
<td></td>
<td>93,001</td>
<td>24,812</td>
<td>13,045</td>
<td>62,063</td>
<td>151,911</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>151,911</td>
</tr>
</tbody>
</table>

**Advanced Manufacturing**
- SF: 24,812
- Mix: 30%
- FAR: 0.35
- Clerk per 1,000 sq. ft.: 0.60

**Research & Development**
- SF: 13,045
- Mix: 15%
- FAR: 1.00
- Tech Accelerator

**Office & Conference**
- SF: 62,063
- Mix: 25%
- FAR: 0.25

**Hotel**
- SF: 0
- Mix: 0%
- FAR: 1.00
- Staff to key: 1:1

**Retail & Entertainment**
- SF: 0
- Mix: 0%
- FAR: 1.00
- Restaurant, cafe

**Mixed Use**
- SF: 0
- Mix: 0%
- FAR: 1.00

**Education**
- SF: 0
- Mix: 0%
- FAR: 1.00

**TOTALS**
- SF: 151,911
- Mix: 100%
- FAR: 0.50

### AERIAL DENSITY

<table>
<thead>
<tr>
<th>Acres</th>
<th>MIX A</th>
<th>MIX B</th>
<th>MIX C</th>
<th>MIX D</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SF</td>
<td>SF</td>
<td>SF</td>
<td>SF</td>
<td>SF</td>
</tr>
<tr>
<td></td>
<td>93,001</td>
<td>24,812</td>
<td>13,045</td>
<td>62,063</td>
<td>151,911</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>151,911</td>
</tr>
</tbody>
</table>

**Advanced Manufacturing**
- SF: 24,812
- Mix: 30%
- FAR: 0.35
- Clerk per 1,000 sq. ft.: 0.60

**Research & Development**
- SF: 13,045
- Mix: 15%
- FAR: 1.00
- Tech Accelerator

**Office & Conference**
- SF: 62,063
- Mix: 25%
- FAR: 0.25

**Hotel**
- SF: 0
- Mix: 0%
- FAR: 1.00
- Staff to key: 1:1

**Retail & Entertainment**
- SF: 0
- Mix: 0%
- FAR: 1.00
- Restaurant, cafe

**Mixed Use**
- SF: 0
- Mix: 0%
- FAR: 1.00

**Education**
- SF: 0
- Mix: 0%
- FAR: 1.00

**TOTALS**
- SF: 151,911
- Mix: 100%
- FAR: 0.50

**Could be film or higher FAR?**
- SF: 14,231.39
- Mix: 100%
- FAR: 0.35

**Higher Ed**
- SF: 1,39,531.39
- Mix: 100%
- FAR: 0.35

**IT company**
- SF: 2,04,558
- Mix: 100%
- FAR: 0.25

**Bank**
- SF: 1,063
- Mix: 100%
- FAR: 0.25

**Air Transport Training**
- SF: 100,251
- Mix: 100%
- FAR: 0.25

**Higher Ed**
- SF: 229,822.56
- Mix: 100%
- FAR: 0.25

**TOTALS**
- SF: 518,511
- Mix: 100%
- FAR: 0.25
<table>
<thead>
<tr>
<th>PHASE 3 North</th>
<th>MIX A</th>
<th>MIX B</th>
<th>MIX C</th>
<th>MIX D</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres (SF)</td>
<td>231.86</td>
<td>99.26</td>
<td>8.34</td>
<td>11.50</td>
<td>335.10</td>
</tr>
<tr>
<td>Mix %</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Far</td>
<td>0.35</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SF</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Advanced Manufacturing</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Office &amp; Conference</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Hotel Staff to key=1:1</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Retail &amp; Entertainment Mix of retail &amp; rest</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Education</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHASE 2 South</th>
<th>MIX A</th>
<th>MIX B</th>
<th>MIX C</th>
<th>MIX D</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres (SF)</td>
<td>100.60</td>
<td>115.98</td>
<td>115.98</td>
<td>115.98</td>
<td>442.55</td>
</tr>
<tr>
<td>Mix %</td>
<td>40%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Far</td>
<td>0.15</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SF</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Advanced Manufacturing</td>
<td>40%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>40%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Office &amp; Conference</td>
<td>40%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Hotel Staff to key=1:1</td>
<td>40%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Retail &amp; Entertainment Mix of retail &amp; rest</td>
<td>40%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Education</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHASE 3 RITA</th>
<th>MIX A</th>
<th>MIX B</th>
<th>MIX C</th>
<th>MIX D</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres (SF)</td>
<td>11.50</td>
<td>11.50</td>
<td>11.50</td>
<td>11.50</td>
<td>44.60</td>
</tr>
<tr>
<td>Mix %</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Far</td>
<td>0.35</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SF</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Advanced Manufacturing</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Office &amp; Conference</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Hotel Staff to key=1:1</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Retail &amp; Entertainment Mix of retail &amp; rest</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Education</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Notes:
1. All Acreage shown is 80% of measured area to allow for stormwater mitigation / open space and parking garages.
2. Where Visitor Parking is not included in sf factor, it is assumed to be accommodated by on street parking, which is not reflected in these numbers.

<table>
<thead>
<tr>
<th>Mix %</th>
<th>SF Totals</th>
<th>Pkg Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24%</td>
<td>273</td>
</tr>
<tr>
<td>24%</td>
<td>616,718</td>
<td>1,146</td>
</tr>
<tr>
<td>28%</td>
<td>725,088</td>
<td>2,499</td>
</tr>
<tr>
<td>8%</td>
<td>197,065</td>
<td>616</td>
</tr>
<tr>
<td>1%</td>
<td>22,196</td>
<td>148</td>
</tr>
<tr>
<td>9%</td>
<td>206,712</td>
<td>549</td>
</tr>
<tr>
<td>6%</td>
<td>155,001</td>
<td>209</td>
</tr>
<tr>
<td></td>
<td>2,550,921</td>
<td>5,440</td>
</tr>
</tbody>
</table>

TOTALS
Basis for Traffic Density Calculations: Site Plan Use Group and Layout

Key:
- 1+ = 30' high one story height
- 2= two story
- 3= three story
- 5= five story
- X.5= partial additional story

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>Advanced Manufacturing</td>
</tr>
<tr>
<td>RD</td>
<td>Research &amp; Development</td>
</tr>
<tr>
<td>OFF</td>
<td>Office / Conference</td>
</tr>
<tr>
<td>H</td>
<td>Hotel</td>
</tr>
<tr>
<td>R</td>
<td>Retail &amp; Entertainment</td>
</tr>
<tr>
<td>MIX</td>
<td>Mixed Use</td>
</tr>
<tr>
<td>E</td>
<td>Education</td>
</tr>
<tr>
<td>ST. RITA</td>
<td>Potential new K-12 St. Rita, Max</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

This Master Plan is the result of a collaborative effort:

VILLAGE OF EVандALE
Community Improvement Corporation
Hugh McKinnon, Chairperson*
Dave Harwood, Member*
Tom Kuechly, Member
Al Pearlman, Member
Jeff Albrinck, Council Representative
Christian J. Schaefer, Council Representative
Richard H. Finan, Council Representative & Mayor*
David Elmer, MPA, Staff Contact*
*Member of Community Improvement Corporation Subcommittee

Community Improvement Corporation Subcommittee
Additional Members and Advisors
Chris Patterson, Planning Commission Chair
James Jeffers, Village Engineer
John Vollbracht, Tree Ridge Capital, LLC, Real Estate Advisor
Sean Balnes, Red Tiger Investments, LLC, Economic Development Advisor
David Linger, TechSolve, Advanced Manufacturing Advisor
Amy Waldbilig, Cincinnati State Workforce Development, Advisor
Master Planning
PEDCO Engineers, Project Management and Master Plan Engineering
Emersion DESIGN, LLC, Master Planning & Sustainability Consulting

Traffic Engineering
Bayer Becker, Inc.

Appreciation for their helpful engagement:
Landmark Church
St. Rita School
Village of Glendale
Village of Woodlawn
City of Sharonville
Village of Lincoln Heights
General Electric
HCDC
Greater Cincinnati Redevelopment Authority
REDI Cincinnati
JobsOhio
AeroHUB Technical Advisory Committee
Able Tool


University of Cincinnati. www.uc.edu


